

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-27 remain pending.

Initially, Applicants note with appreciation the Examiner's indication in paragraph 8 of the Office Action that claims 5 and 24-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In the second paragraph of the Office Action it is asserted that the Korean documents cited in the specification have not been provided by the Applicant, and "therefore only the brief, written disclosure and the background of the invention of the present application has been considered by the Examiner." Applicants respectfully traverse this assertion. Specifically, the background section of the present application discusses Korean patent application no. 98-37315, and Korean patent application no. 99-20488 (which claims priority based on the 98-37315 Korean Patent application). An Information Disclosure Statement was filed by the Applicants on August 7, 2001, citing Korean patent application no. 99-20488. A copy of the form PTO-1449 which accompanied this Information Disclosure Statement was returned by the Examiner with the Office Action dated October 28, 2002, with the Examiner's signature, and the Examiner's initials next to this document. Since this document has in fact been considered by the Examiner, it is respectfully requested that the Examiner clarify the record to indicate that Korean patent application no. 99-20488 has been considered.

In the third paragraph of the Office Action Figures 9-14 are objected to for being photographs, and it is indicated that the Applicants are required to replace the photographs with drawings. Accordingly, enclosed herewith are new Figures 9-14 which are drawings instead of photographs. Additionally, new Figures 7e and 8a are being submitted to address the concerns raised in the Notice of Draftspersons Patent Drawing Review which was attached to the Office Action.

In the fifth paragraph of the Office Action claims 1-4, 8, 9 and 20-22 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Japanese patent application no. P2000-147419A ("*Victor*")¹, U.S. Patent No. 6,116,863 to *Ahn et al.* ("*Ahn*"), and U.S. Patent No. 5,629,790 to *Neukermans* ("*Neukermans*"). This ground of rejection is respectfully traversed.

The combination of *Victor*, *Ahn* and *Neukermans* does not render Applicants' claim 1 unpatentable because the combination does not disclose or suggest that "the thickness of the torsion bar is less than the plurality of driving comb-type electrodes in a direction parallel to the plurality of driving comb-type electrodes" as recited in Applicants' claim 1. Additionally, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to combine *Victor*, *Ahn* and *Neukermans* in the manner described in the Office Action for the reasons provided in the Office Action.

¹ Applicants note that although the Office Action indicates that the rejection is based upon "JP 2000418429" the translation provided by the U.S. Patent Office of the cited Japanese document is in fact Japanese patent application no. P2000-147419A.

Victor discloses a light deflector 1A which includes a reflection mirror unit 7. On the bottom of the reflection mirror unit 7 comb-like tooth unit 9 is provided. The comb-like tooth unit is composed of grooves 9a and protrusions 9b. As recognized by the Office Action *Victor* does not disclose or suggest that "the thickness of the torsion bar is less than the plurality of driving comb-type electrodes in a direction parallel to the plurality of driving comb-type electrodes" as recited in Applicants' claim 1. To remedy this deficiency of *Victor*, the Office Action cites *Neukermans*. Specifically, the Office Action asserts that *Neukermans* "teaches the torsion bar has a thickness less than the stage." However, *Neukermans* does not disclose that the bottom of the stage has driving comb-type electrodes, and hence, cannot disclose or suggest that "the thickness of the torsion bar is less than the plurality of driving comb-type electrodes in the direction parallel to the plurality of driving comb-type electrodes" as recited in Applicants' claim 1. The Office Action cites *Ahn* for disclosing eutectic bonding, and it is respectfully submitted that *Ahn* does not remedy the above-identified deficiencies of the combination of *Victor* and *Neukermans*. Accordingly, since *Victor*, *Ahn* and *Neukermans* each do not disclose the relationship between the torsion bar and the driving comb-type electrodes recited in Applicants' claim 1, it is respectfully submitted that the combination of *Victor*, *Ahn* and *Neukermans* does not disclose or suggest all of the elements of Applicants' claim 1.

The Office Action asserts that one of ordinary skill in the art would have been motivated to provide the alleged disclosure in *Neukermans* of a torsion bar which has a thickness less than the stage "to allow for a variety of vibration modes, as taught by

Neukermans." However, *Neukermans* does not disclose or suggest that the allowance of a variety of vibration modes by using a torsion bar which has a thickness less than the stage would be provided to a system such as *Victor* in which there are a plurality of comb-like tooth units on the bottom of the stage. Accordingly, it is respectfully submitted that since *Neukermans* does not address whether a variety of vibration modes would be provided in a structure such as the one of *Victor*, that the motivation provided by the Office Action would not in fact have motivated one of ordinary skill in the art to combine *Victor* and *Neukermans* in the manner described in the Office Action.

Because the combination of *Victor*, *Ahn* and *Neukermans* does not disclose or suggest all of the elements of Applicants' claim 1, and since one of ordinary skill in the art would not in fact have been motivated to combine *Victor*, *Ahn* and *Neukermans* for the reasons provided in the Office Action, it is respectfully submitted that the combination of *Victor*, *Ahn* and *Neukermans* does not render Applicants' claim 1 unpatentable. Claims 2-4, 8, 9 and 20-22 variously depend from Applicants' claim 1, and hence, are patentably distinguishable over the combination of *Victor*, *Ahn* and *Neukermans* for at least those reasons stated above with regard to Applicants' claim 1.

For at least those reasons stated above it is respectfully requested that the rejection of Applicants' claims 1-4, 8, 9 and 20-22 as allegedly being unpatentable over the combination of *Victor*, *Ahn* and *Neukermans* be withdrawn.

In the sixth paragraph of the Office Action claim 6, 7 and 23 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Victor*, *Ahn*, *Neukermans* and Japanese

patent no. 5-76186 ("*Nakagawa*"). In the seventh paragraph of the Office Action claim 10 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Victor, Ahn, Neukermans* and U.S. Patent No. 5,064,782 to *Nishiguchi* ("*Nishiguchi*"). These grounds of rejection are respectfully traversed.

Claims 6, 7 10 and 23 all variously depend from Applicants claim 1. *Nakagawa* and *Nishiguchi* are cited for features recited in Applicants' claims 6, 7, 10 and 23. However, it is respectfully submitted that *Nakagawa* and *Nishiguchi* each do not address the above-identified deficiencies of the combination of *Victor, Ahn, and Neukermans*. Accordingly, it is respectfully submitted that claims 6, 7 and 23 are patentably distinguishable over the combination of *Victor, Ahn, Neukermans* and *Nakagawa*, and that claim 10 is patentably distinguishable over the combination of *Victor, Ahn, Neukermans* and *Nishiguchi* for at least those reasons stated above with regard to Applicants' claim 1. Accordingly, withdrawal of the rejection of claims 6, 7, 10 and 23 are respectfully requested.

All outstanding objections and rejections having been addressed, it is respectfully submitted that the present application is in immediate condition for allowance. Notice to this effect is earnestly solicited. If there are any questions regarding this response, or the application in general, the Examiner is encouraged to contact the undersigned at 703-838-6578.

Respectfully submitted,

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